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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,142	05/19/2006	Marc Seidel	6097P060	9664

8791 7590 08/04/2009

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EXAMINER	
HOLLOWAY, JASON R	
ART UNIT	PAPER NUMBER
3633	

MAIL DATE	DELIVERY MODE
08/04/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/530,142	SEIDEL ET AL.	
	Examiner	Art Unit	
	JASON HOLLOWAY	3633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 July 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10 July 2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10 July 2009 has been entered.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 10 July 2009 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement has been considered by the examiner.

Drawings

The drawings are objected to because figure 1 contains six separate drawings, however, all six drawings are under the heading “Fig. 1.” The examiner recommends labeling each drawing with a different figure number (i.e. figures 1A-1F). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the

sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claims 1-4, 7, 10, and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maliszewski et al. (6,467,233) in view of Ollgaard (US 2003/0147753).**

Regarding claim 1, Maliszewski et al. teaches a tower having a height ranging between a minimum height and a maximum height (column 2 lines 32-34 teaches a

range of height), in particular for a wind energy turbine (abstract teaches wind generator), comprising:

a first conical tower segment (56, figure 2) comprising a steel tube (column 2 lines 15-18 teach steel construction) having a predetermined length (column 2 lines 2-4 teaches the size of the segments are chosen based on the designed tower height),

a second conical tower segment (58, figure 2) comprising a steel tube (column 2 lines 15-18 teach steel construction) having a predetermined length (column 2 lines 2-4 teaches the size of the segments are chosen based on the designed tower height), the diameter of the first conical tower segment at a lower end being equal to the diameter of the second conical tower segment at an upper end (the examiner construes from figure 2 that the bottom of conical section 58 is the same diameter as the top of conical section 56 since sections 38-48 are the same diameter as the top and bottom of the conical sections 56 and 58), and

a first variable-length cylindrical tower segment (22, figure 2) comprising a steel tube (column 2 lines 15-18 teach steel construction) having a length that can be varied. (The examiner construes that since Maliszewski discloses towers between 60 and 80 meters are comprised of three sections, the lengths of those sections would need to be variable lengths. For instance, to create a tower with a height of 60 meters, three 20 meter segments would be used, with the three segment lengths adding up to the total length of 60 meters. In order to create an 80 foot tower using three segments, three sections approximately 26.7 meters in length would be used. Since different length tower segments would need to be used to create the towers of Maliszewski, the lengths

of the sections would need to be varied, thus, the limitations of the claim as amended are met).

wherein the length of the first cylindrical tower segment (22) is capable of being adapted to the necessary height of the tower between its minimum height and its maximum height.

However, Maliszewski et al. fails to explicitly disclose the first cylindrical tower segment has a length between a predetermined minimum length and a predetermined maximum length, the minimum height being the sum of the predetermined lengths of the first and second conical tower segments and the minimum length of the first cylindrical tower segment, and the maximum height being the sum of the predetermined lengths of the first and second conical tower segments and the maximum length of the first cylindrical tower segment.

Maliszewski et al. discloses: “The towers of this invention can range in height from 32 to over 80 meters” (column 2 lines 32-34); parameters for tower segments for towers which are within the range of 50 meters (column 2 lines 35-37); parameters for tower segments which are within the range of 60-80 meters (column 2 lines 23-26); for the conical segments, the lengths are determined based on the design height of the tower (column 2 lines 2-4); and claims 10 and 16 claim the exact number of segments for different design tower heights.

Therefore, it would have been obvious to one of ordinary skill in the art to determine that the different segments of the tower of Maliszewski et al. have maximum and minimum predetermined lengths in order to create towers at the desired height

specifications using an exact amount of segment sections. Further, it would have been obvious to one of ordinary skill in the art to use appropriate heights for the tower segments since it has been held that changes in size and/or proportion do not constitute patentable subject matter if the claimed relative dimensions would not perform differently than the prior art device (In Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984)).

However, Maliszewski fails to explicitly disclose the first conical tower segment is to be coupled to the second conical tower segment in an assembled condition. In the tower of Maliszewski, conical tower segments are connected indirectly via cylindrical segments 38-50 which are placed between.

Ollgaard teaches a wind turbine tower in which multiple conical tower segments are coupled to one another in an assembled condition, and wherein the diameter of the first conical tower segment at a lower end is equal to the diameter of the second conical tower segment at an upper end (turbine tower sections 11-14 as illustrated in figure 1b).

Therefore, from the teaching of Ollgaard, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the partial cylindrical/conical tower segments of Maliszewski with the teaching of all conical sections as disclosed in Ollgaard since having all conical sections would make the apparatus stronger by creating a wider and heavier base section.

Regarding claim 2, Maliszewski et al. teaches the first variable-length (variable length as address in claim 1) cylindrical tower segment (22) comprises a door opening (21, column 3 lines 36-41).

Regarding claim 3, Maliszewski et al. teaches a second cylindrical tower segment (22, figure 2) comprising a steel tube (column 2 lines 15-18 teach steel construction) having a door opening (21, column 3 lines 36-41) and a length,

However, Maliszewski et al. fails to explicitly disclose the minimum height of the tower is the sum of the predetermined lengths of the first and second conical tower segments, the minimum length of the first cylindrical tower segment and the length of the second cylindrical tower segment and wherein the maximum height of the tower is the sum of the predetermined lengths of the first and second conical tower segments, the maximum length of the first cylindrical tower segment and the length of the second cylindrical tower segment.

Maliszewski et al. discloses: "The towers of this invention can range in height from 32 to over 80 meters" (column 2 lines 32-34); parameters for tower segments for towers which are within the range of 50 meters (column 2 lines 35-37); parameters for tower segments which are within the range of 60-80 meters (column 2 lines 23-26); for the conical segments, the lengths are determined based on the design height of the tower (column 2 lines 2-4); and claims 10 and 16 claim the exact number of segments for different design tower heights.

Therefore, it would have been obvious to one of ordinary skill in the art to determine that the different segments of the tower of Maliszewski et al. have maximum and minimum predetermined lengths in order to create towers at the desired height specifications using an exact amount of segment sections. Further, it would have been obvious to one of ordinary skill in the art to use appropriate heights for the tower

segments since it has been held that changes in size and/or proportion do not constitute patentable subject matter if the claimed relative dimensions would not perform differently than the prior art device (In Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984)).

Regarding claim 4, Maliszewski et al. teaches cylindrical (22, 24, 26, 28, etc) and conical (56, 58) tower segments having lengths (as illustrated in figure 2).

However, Maliszewski et al. fails to explicitly disclose the length of the second cylindrical tower segment is selectable between a predetermined minimum length and a predetermined maximum length, wherein the minimum height of the tower is the sum of the predetermined lengths of the first variable length cylindrical tower segment and second conical tower segments and the minimum lengths of the first and second cylindrical tower segments and wherein the maximum height of the tower is the sum of the predetermined lengths of the first variable length cylindrical tower segment and second conical tower segments and the maximum lengths of the first and second cylindrical tower segments.

Maliszewski et al. discloses: “The towers of this invention can range in height from 32 to over 80 meters” (column 2 lines 32-34); parameters for tower segments for towers which are within the range of 50 meters (column 2 lines 35-37); parameters for tower segments which are within the range of 60-80 meters (column 2 lines 23-26); for the conical segments, the lengths are determined based on the design height of the tower (column 2 lines 2-4); and claims 10 and 16 claim the exact number of segments for different design tower heights.

Therefore, it would have been obvious to one of ordinary skill in the art to determine that the different segments of the tower of Maliszewski et al. have maximum and minimum predetermined lengths in order to create towers at the desired height specifications using an exact amount of segment sections. Further, it would have been obvious to one of ordinary skill in the art to use appropriate heights for the tower segments since it has been held that changes in size and/or proportion do not constitute patentable subject matter if the claimed relative dimensions would not perform differently than the prior art device (In Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984)).

Regarding claim 7, Maliszewski et al. teaches a further tower segment (56, 58) is of a conical configuration (a conical configuration is disclosed in: the abstract; column 1 lines 15-16, 35-40; column 3 lines 30-31; figures 2, 4, 5 and 9).

Regarding claim 10, Maliszewski et al. teaches the further tower segment is of a conical configuration (as illustrated in figure 1, 2 and 9 the further tower segment is conical in shape).

Regarding claim 12, Maliszewski et al. teaches the first variable length cylindrical tower segment (12) and the second cylindrical tower segment (14) each comprise an essential constant wall thickness over their length (the examiner construes from column 1 lines 29-30 and column 2 lines 53-56 that since the outer diameter of the cylinders are identical, the inner diameters are also inherently identical. Further, it is notoriously well known in the art to construct inner cylinder wall diameters which are identical from one end to the next).

Regarding claim 13, the claim is rejected under the combination of Maliszewski and Ollgaard for the same reasons as applied to claim 1 above, including the added limitations of a further tower segment having the same variable length limitations and coupled to an adjacent conical tower section in the same manner as a first and second section. Ollgaard teaches multiple tower sections connected to one another having the same diameters at the connections. Maliszewski teaches a tower that can exceed 80 meters at column 2 lines 32-34.

Regarding claim 14, the combination of Maliszewski and Ollgaard teaches a further tower segment can be made of a steel tube (in Maliszewski column 2 lines 16-21 and in Ollgaard [0003]). Maliszewski teaches towers can be greater than 80 meters in height, it would have been obvious to one of ordinary skill in the art to make the towers 85 meters depending on the height needed.

4. **Claims 5, 6 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maliszewski et al. (6,467,233) in view of Ollgaard (US 2003/0147753), as applied to claims 1 and 13 above, and further in view of Hanson (4,272,929).**

Regarding claim 5, Maliszewski et al. teaches a tower segment (22) which is reinforced by a concrete foundation (column 2 lines 35-45) comprising a door opening (21) and having a length, and

a connecting element (56) for connecting the first variable length cylindrical tower segment (12) with the further tower segment (14) and having a length (the conical

segment 56 is the connecting element between segments 12 and 14, wherein the sub-segments (i.e. 22, 24, 28, 30, etc) are welded to one another, essentially forming a single tower segment),

However, Maliszewski et al. fails to explicitly disclose the minimum height of the tower is the sum of the predetermined lengths of the first and second conical tower segments, the minimum length of the first cylindrical tower segment and the lengths of the further tower segment and the connecting element and wherein the maximum height of the tower is the sum of the predetermined lengths of the first and second conical tower segments, the maximum length of the first cylindrical tower segment and the lengths of the further tower segment and the connecting element.

Maliszewski et al. discloses: “The towers of this invention can range in height from 32 to over 80 meters” (column 2 lines 32-34); parameters for tower segments for towers which are within the range of 50 meters (column 2 lines 35-37); parameters for tower segments which are within the range of 60-80 meters (column 2 lines 23-26); for the conical segments, the lengths are determined based on the design height of the tower (column 2 lines 2-4); and claims 10 and 16 claim the exact number of segments for different design tower heights.

Therefore, it would have been obvious to one of ordinary skill in the art to determine that the different segments of the tower of Maliszewski et al. have maximum and minimum predetermined lengths in order to create towers at the desired height specifications using an exact amount of segment sections. Further, it would have been obvious to one of ordinary skill in the art to use appropriate heights for the tower

segments since it has been held that changes in size and/or proportion do not constitute patentable subject matter if the claimed relative dimensions would not perform differently than the prior art device (In Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984)).

Further, Maliszewski et al. fails to explicitly disclose a lower tower segment comprising reinforced concrete.

Hanson teaches a tower for a wind generator wherein the lower segment of the tower is filled with concrete to give additional support to the tower structure (as disclosed in the abstract; figures 2 and 3).

Therefore, from the teaching of Hanson, it would have been obvious to one of ordinary skill in the art at the time the invention was made to fill the base segment of Maliszewski et al. with concrete as taught by Hanson in order to provide a stronger tower structure with greater resistance to high winds and seismic activity.

Regarding claim 6, the combination of Maliszewski et al. and Hanson teaches cylindrical (22, 24, 26, 28, etc) and conical (56, 58) tower segments having lengths (as illustrated in figure 2).

However, the combination of Maliszewski et al. and Hanson fails to explicitly disclose the length of the further tower segment is selectable between a predetermined minimum length and a predetermined maximum length, wherein the minimum height of the tower is the sum of the predetermined lengths of the first and second conical tower segments, the minimum length of the first cylindrical tower segment, the minimum length of the further tower segment, and the length of the connecting element , and

wherein the maximum height of the tower is the sum of the predetermined lengths of the first and second conical tower segments, the maximum length of the first cylindrical tower segment, the maximum length of the further tower segment, and the length of the connecting element.

Maliszewski et al. discloses: "The towers of this invention can range in height from 32 to over 80 meters" (column 2 lines 32-34); parameters for tower segments for towers which are within the range of 50 meters (column 2 lines 35-37); parameters for tower segments which are within the range of 60-80 meters (column 2 lines 23-26); for the conical segments, the lengths are determined based on the design height of the tower (column 2 lines 2-4); and claims 10 and 16 claim the exact number of segments for different design tower heights.

Therefore, it would have been obvious to one of ordinary skill in the art to determine that the different segments of the tower of Maliszewski et al. have maximum and minimum predetermined lengths in order to create towers at the desired height specifications using an exact amount of segment sections. Further, it would have been obvious to one of ordinary skill in the art to use appropriate heights for the tower segments since it has been held that changes in size and/or proportion do not constitute patentable subject matter if the claimed relative dimensions would not perform differently than the prior art device (In Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984)).

Regarding claim 15, the combination of Maliszewski, Ollgaard and Hanson teaches the further tower segment comprises prestressed-concrete (Hanson teaches a

tower section made from prestressed concrete as described in the rejection for claim 5 above) having a door opening (21, column 3 lines 36-41 of Maliszewski teaches a door opening), and wherein the maximum height is over 80 meters.

However, the combination of Maliszewski Ollgaard and Hanson fails to explicitly disclose the tower height is approximately one hundred meters. It would have been obvious to one of ordinary skill in the art to make the towers 85 meters depending on the height needed. Further, it would have been an obvious matter of design choice to make the tower of the combination of Maliszewski, Ollgaard and Hanson have a height of 100 meters, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955).

Regarding claim 16, the combination of Maliszewski and Ollgaard teaches the further tower segment comprises a connecting element for connecting the first variable-length cylindrical tower segment with the further tower segment (column 3 lines 22-35 of Maliszewski teaches the segments can be connected via bolts, transition rings, and welding; figure 3 of Ollgaard shows the connection between segments).

5. **Claims 8, 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maliszewski et al. (6,467,233) in view of Ollgaard (US 2003/0147753) and further in view of Farber (5,513,477).**

Regarding claims 8 and 11, Maliszewski et al. teaches conical sections (56, 58) with varying wall thicknesses depending on need disposed within the tower (column 2

lines 9-22). However, Maliszewski et al. fails to explicitly disclose the conical sections have a wall thickness decreasing towards their upper ends in the installed condition of the tower.

Farber teaches graded structural utility poles which have a wall thickness decreasing towards their upper ends in the installed condition (as illustrated in figures 3, 7, and 8).

Therefore, from the teaching of Farber, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wall thicknesses of the conical segments of Maliszewski et al. with the decreasing wall thicknesses as disclosed in Farber in order to further reduce the material costs of the steel segments since less material would be required.

Regarding claim 9, Maliszewski et al. teaches the first variable length cylindrical tower segment (12) and the second cylindrical tower segment (14) each comprise an essential constant wall thickness over their length (the examiner construes from column 1 lines 29-30 and column 2 lines 53-56 that since the outer diameter of the cylinders are identical, the inner diameters are also inherently identical. Further, it is notoriously well known in the art to construct inner cylinder wall diameters which are identical from one end to the next).

Response to Arguments

6. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new grounds of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached 892 form.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON HOLLOWAY whose telephone number is (571) 270-5786. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on 571-272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gay Ann Spahn/
Gay Ann Spahn, Primary Examiner
August 2, 2009

JASON HOLLOWAY
Examiner
Art Unit 3633

JH